# Dipkumar Patel

dip.patel.ict@gmail.com | +91-966-211-5665

## Links

- Github:// immortal3
- Linkedin: // Dipkumar Patel

## Achievements

- LeetCode:// immortal3
In top 2 percentile of ranking
- Binarysearch:// immortal
Solved 900+ problems
- CodeChef:// immortal3
(Highest Rating: ⋆ ⋆ ⋆ ⋆ ⋆)
- Winner of Ingenious Hackathon 2017

## Education

**Ahmedabad University**
B.Tech in ICT
2015-2019

## Coursework

### Undergraduate

High Performance Computing
Machine Learning
Computer Vision
Introduction to Blockchain
Cloud Computing
Information System Security

### MOOC

Deep Learning Specialization by deeplearning.ai
Data Structures and Algorithms Specialization by UC San Diego

## Skills

### Programming

- Python, C/C++, JavaScript, Java, Sql

### Libraries

- Pytorch, Spacy, Flask, Celery, Opencv, Keras, Pandas, Sklearn

### Software

- Git, MATLAB, Xilinx ISE

## Experience

**RAx Labs** | Research engineer
Oct 2020 - June 2021 | Ahmedabad, India (Remote)
- Built multiple NLP-powered features for raxter.io platform
- Responsible for research as well as backend development
- Worked on a summary generation of scientific documents
- Developed a proprietary algorithm for advance semantic text search in scientific documents.

**Fero.AI** | Machine Learning Engineer
Aug 2019 - Sep 2020 | Ahmedabad, India
- Built Machine Learning solutions for the Fero.ai ecosystem
- Developed full-fledged highly scalable service for the Vehicle Routing Problem (VRP), reducing overall delivery cost and improving customer satisfaction.
- Worked on Semantic segmentation ( mean IOU: 85% ) and built custom image stitching algorithm to handle plain surfaces.
- Implemented cross-lingual speech intent classification ( F1-score: 0.92 )

Jan 2019 - May 2019 | Machine Learning Intern
- Developed Near-duplicate video search engine (reverse video search).
- Improved both signature extraction from video and retrieval of a similar signature from database.

## Publication

- MMPL (Medicine Multi-Participant Ledger) at International Workshop on Blockchain Technologies (IWBT 2018), NIT Warangal. (Accepted)

## Projects

**Image Saliency Detection** | link
- As humans, We only focus on certain parts of the image which is called a salient region. This project tries to emulate human visual perception by predicting the Saliency map (achieved 0.77 AUC) of a given image.

**Autoencoder Based Communication System** | link
- Implementation of novel deep learning based end-to-end communication system which can outperform state-of-the-art modulation Schemes.
- Autoencoder is used to remove noise from the communication channel through end-to-end learning.

**File System (EbFs)** | link
- Created portable and secure hierarchical File System from scratch. EbFs is inspired by ext2fs (Linux file system) which used inode for storing meta-data.

**Binary Gender Classification from Facial Image** | live demo
- Classification of the gender from the facial image of a person. Implemented compact CNN and gained an F1-score of 0.94 with real-time performance.
- Client-side deployed using Tensorflow.js.